

EXHIBIT C

SEQUENCE LISTING

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<120> Genes involved in plant fibre development

<130> 503310

<140> 10/564,785
 <141> 2005-03-31

<150> AU 2004901749
 <151> 2004-03-31

<150> US 60/558,480
 <151> 2004-03-31

<150> PCT/AU05/00467
 <151> 2005-03-31

<160> 74

<170> PatentIn version 3.1

<210> 1
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Val Lys Phe Trp Phe Gln Asn Lys Arg Thr Gln Met Lys Ala Gln His
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Ala Glu Asn Asn Arg Tyr Lys Glu Ala Leu Ser Asn Ala Thr Cys Pro
 35 40 45

Ser Cys Gly Gly Pro Ala Ala Leu Gly Glu Met Ser Phe Asp Glu Gln
 50 55 60

His Leu Arg Ile Glu Asn Ala Arg Leu Arg Glu Glu Ile Asp Arg Ile
 65 70 75 80

Ser Gly Ile Ala Ala Lys Tyr Val Gly Lys Pro Leu Ser Ser Leu Pro
 85 90 95

His Leu Ser Ser His Leu His Ser Arg Ser Ala Asp Leu Gly Ala Ser
 100 105 110

Asn Phe Gly Asn Gln Ser Gly Phe Val Gly Glu Met Asp Arg Ser Gly
 115 120 125

Asp Leu Leu Arg Ser Val Ser Gly Pro Thr Glu Ala Asp Lys Pro Met
 130 135 140

Ile Val Glu Leu Ala Val Ala Ala Met Glu Glu Leu Ile Arg Met Ala
 145 150 155 160

Gln Ser Gly Glu Pro Leu Trp Val Pro Gly Asp Asn Ser Thr Asp Val
 165 170 175

Leu Asn Glu Asp Glu Tyr Leu Arg Thr Phe Pro Arg Gly Ile Gly Pro
 180 185 190

Lys Pro Leu Gly Leu Arg Ser Glu Ala Ser Arg Glu Ser Ala Val Val
 195 200 205

Ile Met Asn His Val Asn Leu Val Glu Ile Leu Met Asp Val Asn Gln
 210 215 220

Trp Ser Ser Val Phe Cys Gly Ile Val Ser Arg Ala Met Thr Leu Glu
 225 230 235 240

Val Leu Ser Thr Gly Val Ala Gly Asn Tyr Asn Gly Ala Leu Gln Val
 245 250 255

Met Thr Ala Glu Phe Gln Val Pro Ser Pro Leu Val Pro Thr Arg Glu
 260 265 270

Asn Tyr Phe Ala Arg Tyr Cys Lys Gln His Ile Asp Gly Thr Trp Ala
 275 280 285

Val Val Asp Val Ser Leu Asp Asn Leu Arg Pro Asn Pro Met Ser Ser
 290 295 300

Val Glu Arg Pro Ser Gly Cys Leu Ile Gln Asn Cys Gln Met Asp Thr
 305 310 315 320

Ser Lys Val Ile Trp Val Glu His Val Glu Val Asp Asp Arg Ala Val
 325 330 335

His Asn Ile Tyr Arg Pro Val Val Asn Ser Gly Leu Ala Phe Gly Ala
 340 345 350

Lys Arg Trp Val Ala Thr Leu Asp Arg Gln Cys Glu Arg Leu Ala Ser
 355 360 365

Ser Met Ala Ser Asn Ile Pro Ala Gly Gly Leu Cys Val Ile Thr Ser
 370 375 380

Pro Glu Gly Arg Lys Ser Met Leu Lys Leu Ala Glu Arg Met Val Thr
385 390 395 400

Ser Phe Cys Thr Gly Val Gly Ala Ser Thr Ala His Ala Trp Thr Thr
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Leu Ser Ala Thr Gly Ser Asp Asp Val Arg Val Met Thr Arg Lys Ser
420 425 430

Met Asp Asp Pro Gly Arg Pro Pro Gly Ile Val Leu Ser Ala Ala Thr
435 440 445

Ser Phe Trp Ile Gln Val Pro Pro Lys Arg Val Phe Asp Phe Leu Arg
450 455 460

Asp Glu Asn Ser Arg Ser Glu Trp Asp Ile Leu Ser Asn Gly Gly Leu
465 470 475 480

Val Gln Glu Met Ala His Ile Ala Asn Gly Arg Asp Pro Gly Asn Cys
485 490 495

Val Ser Leu Leu Arg Val Asn Ser Ala Asn Ser Ser Gln Ser Asn Met
500 505 510

Leu Ile Leu Gln Glu Ser Cys Thr Asp Ala Lys Gly Ser Tyr Val Ile
515 520 525

Tyr Ala Pro Val Asn Ile Val Ala Met Asn Ile Val Leu Ser Gly Gly
530 535 540

Asp Pro Asp Tyr Val Ala Leu Leu Pro Ser Gly Phe Ala Ile Leu Pro
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Asp Gly Pro Gly Val Asn Gly Gly Gly Ile Leu Glu Ile Gly Ser Gly
565 570 575

Gly Ser Leu Leu Thr Val Ala Phe Gln Ile Leu Val Asp Ser Val Pro
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Lys Cys Thr Val Glu Arg Ile Lys Ala Ala Val Lys Cys Asn Asn Ala
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Gly His Gly Ser Trp Arg Ala Leu Pro Ser Lys Ala Gly Leu Gln Arg
35 40 45
Cys Gly Lys Ser Cys Arg Leu Arg Trp Ile Asn Tyr Leu Arg Pro Asp
50 55 60
Ile Lys Arg Gly Lys Phe Ser Leu Gln Glu Glu Gln Thr Ile Ile Gln
65 70 75 80
Leu His Ala Leu Leu Gly Asn Arg Trp Ser Ala Ile Ala Thr His Leu
85 90 95
Pro Lys Arg Thr Asp Asn Glu Ile Lys Asn Tyr Trp Asn Thr His Leu
100 105 110
Met Lys Arg Leu Thr Lys Met Gly Ile Asp Pro Val Thr His Lys Pro
115 120 125
Lys Thr Asp Ala Leu Gly Ser Thr Thr Gly Asn Pro Lys Asp Ala Ala
130 135 140
Asn Leu Ser His Met Ala Gln Trp Glu Ser Ala Arg Leu Glu Ala Glu
145 150 155 160
Ala Arg Leu Val Arg Glu Ser Lys Leu Val Pro Ser Asn Pro Pro Gln
165 170 175
Ser Asn His Phe Thr Ala Val Ala Pro Ser Pro Thr Pro Ala Thr Arg
180 185 190
Pro Gln Cys Leu Asp Val Leu Lys Ala Trp Gln Gly Val Val Cys Gly
195 200 205
Leu Phe Thr Phe Asn Met Asp Asn Asn Asn Leu Gln Ser Pro Thr Ser
210 215 220
Thr Leu Asn Phe Met Glu Asn Thr Thr Thr Leu Pro Met Ser Ser Ser
225 230 235 240

Ser Ser Val Asn Gly Met Phe Asn Glu Asn Phe Gly Trp Asn Ser Ser
245 250 255

Ile Asn Pro Cys Glu Ser Gly Asp Asn Leu Lys Val Glu Tyr Gly Ser
260 265 270

Asp Gln Ile Pro Glu Leu Lys Glu Arg Leu Asp His Pro Met Glu Leu
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His Glu Met Asp Tyr Ser Ser Glu Gly Thr Trp Phe Gln Glu Leu Phe
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Gly Phe Asn Gly Leu
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Asp Gln Val Glu Leu Phe Asn Pro Ile Asp Tyr Gln Asn Gln Leu Leu
35 40 45

Ser Val Leu Lys Ile Ser Lys Glu Lys Val Asn Asp Cys Tyr Lys Leu
50 55 60

Ile Leu Asp Val Ser Thr Arg Pro Gln Ala Gln Gly Asn Gly Gly Ala
65 70 75 80

Cys Lys Arg Lys Val Glu Glu Arg Val Pro Ser Ser Pro Ser Gly Val
85 90 95

Ile Asp Ala Ala Phe Gly Ser Asp Ser Ser Ser Asp Ser Trp Gly Thr
100 105 110

Val Ser Leu Ser Pro Glu Gln Gln Pro Pro Phe Lys Lys Ser Arg Ala
115 120 125

Gln Glu Gln Val Met Arg Leu Pro Ser Leu Asn Arg Val Phe Val Asp
130 135 140

Ile Val Gly Ser Pro Ser
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<400> 4

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Ile Gln Thr Val Thr Pro Met Arg Ile Thr Glu Pro Arg Gln Thr Arg
20 25 30

Gln Val Leu Ala Gly Glu Leu Val Gly Pro Gly Ile Phe Gln Arg Cys
35 40 45

Leu Asn Val Val Gln Tyr Tyr Met Lys Glu Lys Glu Glu Asp Ser Gly
50 55 60

Trp Leu Leu Ala Gly Trp Ile Lys Glu Thr Leu Gly Arg Ala Leu His
65 70 75 80

Glu Gln Pro Met Ile Ser Gly Arg Leu Arg Lys Gly Glu Arg Asn Asp
85 90 95

Gly Glu Leu Glu Ile Val Ser Asn Asp Cys Gly Ile Arg Leu Ile Glu
100 105 110

Ala Arg Ile Gln Met Asn Leu Ser Asp Phe Leu Asp Leu Lys Gln Arg
115 120 125

Glu Asp Ala Glu Ala Gln Leu Val Phe Trp Lys Asp Ile Asp Glu Gln
130 135 140

Asn Pro Gln Phe Ser Pro Leu Phe Tyr Val Gln Val Thr Asn Phe Gln
145 150 155 160

Cys Gly Gly Tyr Ser Ile Gly Ile Ser Cys Ser Ile Leu Leu Ala Asp
165 170 175

Leu Leu Leu Met Lys Glu Phe Leu Lys Thr Trp Ala Asp Ile Pro Thr
180 185 190

Arg Leu Leu Ser Thr Lys Thr Met Asn Lys Ser Phe Leu Tyr Ser Thr
195 200 205

Phe Leu Ala Glu Lys His Gln Trp Cys Leu Pro Thr Ser Ser His Gln
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215

220

Ile Gln Ala Lys Leu
225

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<213> Gossypium hirsutum

<400> 5

Met Ala Lys Tyr Leu Asn Val Val Leu Val Leu Ala Leu Val Val Val
1 5 10 15

Gln Ala Thr Ala Arg Asn Val Pro Ser Asp Ala Ala Gly Leu Asn Asp
20 25 30

Gln Lys Asn Leu Leu Thr Tyr Gly Gly Ile Gly Gly Tyr Ser Gly Met
35 40 45

Gly Ser Asn Gly Met Pro Met Gly Gly Val Gly Ser Val Gly Gly Met
50 55 60

Thr Gly Leu Gly Gly Thr Gly Gly Met Gly Ala Met Val Gly Val Gly
65 70 75 80

Tyr Gly Gly Gly Pro Gly Ala Gly Gly Gly Asn Glu Gly Gly Val Gly
85 90 95

Ile Gly Asn Ala Pro Gly Val Val His Phe Pro
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<210> 6
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Ser Ser Asp Ser Arg Lys Pro Leu Ala Ser Phe Tyr Leu Glu Lys Thr
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Lys Lys Leu Leu Leu Cys Trp Thr Cys Ser Cys Phe Phe Ser Leu Tyr
20 25 30

Gly Val Val Tyr Gly Leu Tyr Tyr Glu Phe Tyr Met Asn Arg Thr Leu
35 40 45

Asn Leu Val Arg Lys Leu Arg Met Ser Leu Gly Gly Ala Glu Val Leu
50 55 60

Met Ala Ile Ala Gly Leu Trp Ala Val Val Leu Arg Pro Leu Met Ile
65 70 75 80

Arg Tyr Ala Val Glu Met Ser Gln Met Ile Gly Ile Ser Val Arg Arg
85 90 95

Phe Phe Ser Asn Pro Leu Ser Pro Ser Val Ser Phe Phe Tyr Trp Tyr
100 105 110

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1 5 10 15

Leu Phe Ser Val Cys Asn Ser Ile Phe Leu Gly Ala Asn Gly Asp Asp
20 25 30

Asn Gly Gly Trp Gln Thr Ala His Ala Thr Phe Tyr Gly Gly Ala Asp
35 40 45

Ala Thr Gly Thr Met Gly Gly Ala Cys Gly Tyr Gly Asn Leu Tyr Ser
50 55 60

Gln Gly Tyr Gly Thr Ser Thr Ala Ala Leu Ser Thr Ala Leu Phe Asn
65 70 75 80

Asn Gly Leu Ser Cys Gly Ala Cys Tyr Glu Leu Arg Cys Asn Asn Asp
85 90 95

Pro Gln Trp Cys Ile Ser Arg Thr Ile Thr Val Thr Ala Thr Asn Phe
100 105 110

Cys Pro Pro Asn Tyr Ala Leu Ser Ser Asp Asn Gly Gly Trp Cys Asn
115 120 125

Pro Pro Arg Glu His Phe Asp Leu Ala Glu Pro Arg Phe Leu Arg Ile
130 135 140

Ala Glu Tyr Arg Ala Gly Ile Val Pro Val Met Phe Arg Arg Val Ser
145 150 155 160

Cys Val Lys Lys Gly Gly Ile Arg Tyr Thr Met Asn Gly His Ser Tyr
165 170 175

Phe Asn Met Val Leu Ile Thr Lys Leu Gly Gly Ala Gly Asp Ile Thr
180 185 190

Ser Val Ser Ile Lys Gly Ser Arg Thr Gly Trp Leu Pro Met Ser Arg
195 200 205

Asn Trp Gly Gln Asn Trp Gln Ser Asn Ala Tyr Leu Asn Gly Gln Ser
210 215 220

Leu Ser Phe Lys Val Thr Ala Ser Asp Gly Arg Thr Ile Thr Ala Tyr
225 230 235 240

Asn Val Val Pro Ala Gly Trp Gln Phe Gly Gln Thr Phe Glu Gly Gly
245 250 255

Gln Phe

<210> 8
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Val Pro Phe Tyr Ser Ser Asn Tyr Leu Leu His Glu Ser Cys Met Met
1 5 10 15

Met Ile Ala Ser Leu Val Pro Asn Phe Met Met Gly Val Ile Ile Gly
20 25 30

Ala Gly Tyr Ile Gly Leu Leu Met Met Thr Ala Gly Tyr Phe Arg Leu
35 40 45

Leu Pro Asp Leu Pro Lys Ile Phe Trp Arg Tyr Pro Val Ser Tyr Ile
50 55 60

Asn Tyr Gly Ala Trp Ala Leu Gln Gly Ala Tyr Lys Asn Asp Met Val
65 70 75 80

Gly Leu Glu Phe Asp Gly Phe Ile Pro Gly Gly Pro Lys Leu Lys Gly
85 90 95

Asp Val Val Leu Thr Ser Met Leu Gly Ile His Leu Asp His Ser Lys
100 105 110

Trp Trp Asp Leu Ala Ala Val Ile Met Ile Leu Ile Ala Tyr Arg Leu
115 120 125

Leu Phe Phe Ile Ile Leu Lys Phe Lys Glu Arg Val Ser Pro Leu Phe
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130

135

140

Arg Thr Leu Tyr Thr Trp Arg Thr Leu Gln His Met Lys Lys Arg Pro
 145 150 155 160

Ser Phe Arg Lys Thr Ser Ala Phe Pro Ser Lys Arg His Gln Val Leu
 165 170 175

His Ser Leu Ser Ser Gln Glu Gly Leu Asn Ser Pro Ile His
 180 185 190

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<400> 9

Met Ala Asn Pro Val Ile Thr Arg Val His Ser Leu Arg Glu Arg Leu
 1 5 10 15

Asp Glu Thr Leu Leu Ala His Arg Asn Glu Ile Leu Ala Leu Leu Ser
 20 25 30

Arg Ile Glu Gly Lys Gly Lys Gly Ile Leu Gln His His Gln Ile Ile
 35 40 45

Leu Glu Phe Glu Ala Ile Pro Glu Glu Asn Arg Lys Lys Leu Ala Asp
 50 55 60

Gly Ala Phe Phe Glu Val Leu Lys Ala Ser Gln Glu Ala Ile Val Leu
 65 70 75 80

Pro Pro Trp Val Ala Leu Ala Val Arg Pro Arg Pro Gly Val Trp Glu
 85 90 95

Tyr Ile Arg Val Asn Val His Ala Leu Val Val Glu Glu Leu Thr Val
 100 105 110

Ala Glu Tyr Leu His Phe Lys Glu Glu Leu Val Asp Gly Ser Ser Asn
 115 120 125

Gly Asn Phe Val Leu Glu Leu Asp Phe Glu Pro Phe Asn Ser Ser Phe
 130 135 140

Pro Arg Pro Thr Leu Ser Lys Ser Val Gly Asn Gly Val Glu Phe Leu
 145 150 155 160

Asn Arg His Leu Ser Ala Lys Leu Phe His Asp Lys Glu Ser Met His
 165 170 175

Pro Leu Leu Glu Phe Leu Arg Val His Cys His Lys Gly Lys Asn Met
 180 185 190
 Met Leu Asn Asp Arg Ile Gln Asn Leu Asn Ala Leu Gln His Val Leu
 195 200 205
 Arg Lys Ala Glu Glu Tyr Leu Gly Thr Leu Pro Pro Glu Thr Pro Cys
 210 215 220
 Ala Gly Phe Glu His Arg Phe Gln Glu Ile Gly Leu Glu Arg Gly Trp
 225 230 235 240
 Gly Asp Thr Ala Gln Arg Val Leu Glu Met Ile Gln Leu Leu Leu Asp
 245 250 255
 Leu Leu Glu Ala Pro Asp Pro Cys Thr Leu Glu Lys Phe Leu Gly Arg
 260 265 270
 Ile Pro Met Val Phe Asn Val Val Ile Leu Thr Pro His Gly Tyr Phe
 275 280 285
 Ala Gln Asp Asn Val Leu Gly Tyr Pro Asp Thr Gly Gly Gln Val Val
 290 295 300
 Tyr Ile Leu Asp Gln Val Arg Ala Leu Glu Asn Glu Met Leu Leu Arg
 305 310 315 320
 Ile Lys Gln Gln Gly Leu Asn Ile Thr Pro Arg Ile Leu Ile Ile Thr
 325 330 335
 Arg Leu Leu Pro Asp Ala Val Gly Thr Thr Cys Gly Gln Arg Leu Glu
 340 345 350
 Lys Val Tyr Gly Thr Glu Tyr Ser Asp Ile Leu Arg Val Pro Phe Arg
 355 360 365
 Thr Glu Lys Gly Ile Val Arg Lys Trp Ile Ser Arg Phe Glu Val Trp
 370 375 380
 Pro Tyr Leu Glu Thr Tyr Thr Glu Asp Val Ala His Glu Ile Ser Lys
 385 390 395 400
 Glu Leu Gln Gly Lys Pro Asp Leu Ile Ile Gly Asn Tyr Ser Asp Gly
 405 410 415
 Asn Ile Val Ala Ser Leu Leu Ala His Lys Leu Gly Val Thr Gln Cys
 420 425 430

Thr Ile Ala His Ala Leu Glu Lys Thr Lys Tyr Pro Asp Ser Asp Ile
 435 440 445
 Tyr Trp Lys Lys Leu Glu Asp Lys Tyr His Phe Ser Cys Gln Phe Thr
 450 455 460
 Ala Asp Leu Phe Ala Met Asn His Thr Asp Phe Ile Ile Thr Ser Thr
 465 470 475 480
 Phe Gln Glu Ile Ala Gly Ser Lys Asp Thr Val Gly Gln Tyr Glu Ser
 485 490 495
 His Thr Ala Phe Thr Leu Pro Gly Leu Tyr Arg Val Val His Gly Ile
 500 505 510
 Asp Val Phe Asp Pro Lys Phe Asn Ile Val Ser Pro Gly Ala Asp Met
 515 520 525
 Glu Ile Tyr Phe Pro Tyr Thr Glu Glu Lys Arg Arg Leu Lys His Phe
 530 535 540
 His Thr Glu Ile Glu Asp Leu Leu Tyr Ser Lys Val Glu Asn Glu Glu
 545 550 555 560
 His Leu Cys Val Leu Asn Asp Arg Asn Lys Pro Ile Leu Phe Thr Met
 565 570 575
 Ala Arg Leu Asp Arg Val Lys Asn Leu Thr Gly Leu Val Glu Trp Tyr
 580 585 590
 Gly Lys Asn Ala Lys Leu Arg Glu Leu Ala Asn Leu Val Val Val Gly
 595 600 605
 Gly Asp Arg Arg Lys Glu Ser Lys Asp Leu Glu Glu Lys Ala Glu Met
 610 615 620
 Lys Lys Met Phe Glu Leu Ile Glu Lys Tyr Asn Leu Asn Gly Gln Phe
 625 630 635 640
 Arg Trp Ile Ser Ser Gln Met Asn Arg Ile Arg Asn Gly Glu Leu Tyr
 645 650 655
 Arg Tyr Ile Cys Asp Thr Lys Gly Ala Phe Val Gln Pro Ala Leu Tyr
 660 665 670
 Glu Ala Phe Gly Leu Thr Val Val Glu Ala Met Thr Cys Gly Leu Pro
 675 680 685

Thr Phe Ala Thr Cys Asn Gly Gly Pro Ala Glu Ile Ile Val His Gly
 690 695 700
 Lys Ser Gly Phe Asn Ile Asp Pro Tyr His Gly Asp Gln Ala Ala Asp
 705 710 715 720
 Ile Leu Val Asp Phe Phe Glu Lys Cys Lys Lys Asp Pro Ser His Trp
 725 730 735
 Asp Lys Ile Ser Gln Gly Gly Leu Lys Arg Ile Glu Glu Lys Tyr Thr
 740 745 750
 Trp Lys Ile Tyr Ser Glu Arg Leu Leu Thr Leu Thr Gly Val Tyr Gly
 755 760 765
 Phe Trp Lys His Val Ser Asn Leu Glu Arg Arg Glu Ser Arg Arg Tyr
 770 775 780
 Leu Glu Met Phe Tyr Ala Leu Lys Tyr Arg Lys Leu Ala Glu Ser Val
 785 790 795 800
 Pro Leu Ala Glu Glu
 805

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 Thr Val Val Thr Ala Ala Asp Glu Ser Gly Leu Ala Asn Glu Cys Ser
 20 25 30
 Lys Asp Phe Gln Ser Val Met Thr Cys Leu Ser Phe Ala Gln Gly Lys
 35 40 45
 Ala Ala Ser Pro Ser Lys Glu Cys Cys Asn Ser Val Ala Gly Ile Lys
 50 55 60
 Glu Asn Lys Pro Lys Cys Leu Cys Tyr Ile Leu Gln Gln Thr Gln Thr
 65 70 75 80
 Ser Gly Ala Gln Asn Leu Lys Ser Leu Gly Val Gln Glu Asp Lys Leu
 85 90 95

Phe Gln Leu Pro Ser Ala Cys Gln Leu Lys Asn Ala Ser Val Ser Asp
100 105 110

Cys Pro Lys Leu Leu Gly Leu Ser Pro Ser Ser Pro Asp Ala Ala Ile
115 120 125

Phe Thr Asn Ser Ser Ser Lys Ala Thr Thr Pro Ser Thr Ser Thr Thr
130 135 140

Thr Ala Thr Pro Ser Ser Ala Ala Asp Lys Thr Asp Ser Lys Ser Ser
145 150 155 160

Gly Ile Lys Leu Gly Pro His Phe Val Gly Ser Thr Ala Ala Leu Leu
165 170 175

Val Ala Thr Ala Ala Val Phe Phe Leu Val Phe Pro Ala Gly Phe Ala
180 185 190

Ser Ile Val
195

<210> 11
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<213> Gossypium hirsutum

<400> 11

Met Ala Ser Ser Gly Val Leu Lys Leu Val Ser Met Ile Leu Met Val
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Cys Met Thr Met Met Ser Ala Pro Lys Ala Ala Lys Ala Ala Ile Thr
20 25 30

Cys Ser Asp Val Val Asn His Leu Ile Pro Cys Leu Ser Tyr Val Gln
35 40 45

Asn Gly Gly Thr Pro Ala Ala Ala Cys Cys Ser Gly Val Lys Ala Leu
50 55 60

Tyr Gly Glu Val Gln Thr Ser Pro Asp Arg Gln Asn Val Cys Lys Cys
65 70 75 80

Ile Lys Ser Ala Val Asn Gly Ile Pro Tyr Thr Ser Asn Asn Leu Asn
85 90 95

Leu Ala Ala Gly Leu Pro Ala Lys Cys Gly Leu Gln Leu Pro Tyr Ser
100 105 110

Ile Ser Pro Ser Thr Asp Cys Asn Lys Val Gln
115 120

<210> 12
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<213> Gossypium hirsutum

<400> 12

Pro Arg Val Arg Pro Arg Val Arg Ala His Leu Pro Lys Arg Thr Asp
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Asn Glu Ile Lys Asn Tyr Trp Asn Thr Gln Leu Lys Lys Arg Leu Thr
20 25 30

Thr Ile Gly Ile Asp Pro Ala Thr His Arg Pro Lys Thr Asp Thr Leu
35 40 45

Gly Ser Thr Pro Lys Asp Ala Ala Asn Leu Ser His Met Ala Gln Trp
50 55 60

Glu Ser Ala Arg Leu Glu Ala Glu Ala Arg Leu Val Arg Glu Ser Lys
65 70 75 80

Arg Val Ser Asn Pro Ser Gln Asn Gln Phe Arg Phe Thr Ser Ser Ser
85 90 95

Ala Pro Pro Leu Val Ser Lys Ile Asp Val Gly Leu Ala His Ala Thr
100 105 110

Lys Pro Gln Cys Leu Asp Val Leu Lys Ala Trp Gln Arg Val Val Thr
115 120 125

Gly Leu Phe Thr Phe Asn Thr Asp Asn Leu Gln Ser Pro Thr Ser Thr
130 135 140

Ser Ser Phe Thr Glu Asn Thr Leu Pro Ile Ser Ser Val Gly Phe Ile
145 150 155 160

Asp Ser Phe Val Gly Asn Ser Asn Asn Ser Cys Cys Gly Asn Asn Trp
165 170 175

Glu Cys Val Glu Lys Ser Ser Gln Val Ala Glu Leu Gln Glu Arg Leu
180 185 190

Asp Asn Ser Met Gly Leu His Asp Ile Leu Asp Leu Ser Ser Glu Asp
195 200 205

Val Trp Phe Gln Gly Ser Tyr Arg Ala Glu Asn Met Met Glu Gly Tyr
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210

215

220

Ser Asp Thr Leu Met Val Cys Asp Ser Gly Asp His Pro Lys Ser Leu
 225 230 235 240

Ser Met Glu Pro Arg Gln Asn Phe Asn Val Gly Thr Ser Asn Ala Ser
 245 250 255

Ser Phe Glu Glu Asn Lys Asn Tyr Trp Asn Asn Ile Leu Asn Phe Ala
 260 265 270

Asn Ala Ser Pro Ser Gly Ser Ser Val Phe
 275 280

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<211> 177

<212> PRT

<213> Gossypium hirsutum

<400> 13

Met Lys Val Leu Ser Pro Ile Leu Ala Cys Leu Ala Leu Ala Val Val
 1 5 10 15

Ala Ser His Ala Ala Leu Ser Pro Glu Gln Tyr Trp Ser Tyr Lys Leu
 20 25 30

Pro Asn Thr Pro Met Pro Lys Ala Val Lys Glu Ile Leu His Pro Glu
 35 40 45

Leu Met Glu Glu Lys Ser Thr Ser Val Asn Val Gly Gly Gly Gly Val
 50 55 60

Asn Val Asn Thr Gly Lys Gly Lys Pro Ala Gly Gly Thr His Val Asn
 65 70 75 80

Val Gly Arg Lys Gly Val Gly Val Asn Thr Gly Lys Pro Gly Gly Gly
 85 90 95

Thr His Val Asn Val Gly Gly Lys Gly Val Gly Val Asn Thr Gly Lys
 100 105 110

Pro Gly Gly Gly Thr His Val Asn Val Gly Gly Lys Gly Gly Gly Val
 115 120 125

Ser Val His Thr Gly His Lys Gly Lys Pro Val Asn Val Asn Val Ser
 130 135 140

Pro Phe Leu Tyr Gln Tyr Ala Ala Ser Glu Thr Gln Ile His Asp Asp
 145 150 155 160

Pro Asn Val Ala Leu Phe Phe Leu Glu Lys Asp Leu His Pro Gly Gln
165 170 175

Gln

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<400> 14

Leu Ser Glu Ser Lys Glu Met Val Phe Gln Phe Asn Phe Pro Val Leu
1 5 10 15

Leu Leu Cys Leu Met Phe Leu Met Cys Gly Arg Gly Asn Ala Val Arg
20 25 30

Asp Leu Glu Gly Lys His Asp Phe Glu Ser His Gly Arg Asp Asp Glu
35 40 45

Val Glu Ser Leu Asp Asp Lys Tyr Val Ser Ala Tyr Phe His Gln Thr
50 55 60

Phe Asp Ser Ala Asn His Phe Asp Gly Gly Asp Glu Val Lys Asn Leu
65 70 75 80

Glu Asp Lys Tyr Ser Thr Ala Tyr Phe His Lys Ser Leu Asp Ser Gly
85 90 95

Asn His Gly Arg Asp Asp Lys Ala Lys Ile Leu Glu Asp Lys Tyr Ala
100 105 110

Thr Ala Tyr Phe His Lys Thr Ser Val Phe Glu Asn His Gly Glu Gly
115 120 125

Asp Lys Leu Lys Ser Leu Glu Asp Lys Tyr Ser Ala Ala Tyr Phe His
130 135 140

Asn Thr Gln Ser Ser Lys Met Met Lys Asp His Asn Met Glu His His
145 150 155 160

His His Tyr His Asn His Val Glu Ser Ala Glu Ile Gly Leu Phe Thr
165 170 175

Ile Asp Glu Leu His Thr Phe Asn Val Gly Lys Lys Leu Pro Ile Phe
180 185 190

Phe Pro Ile Lys Asn His Ser Leu Tyr Pro Pro Leu Leu Pro Lys Gln
195 200 205

Ile Ala Asp Thr Ile Pro Phe Ser Ser Phe Gln Val Ser Asn Ile Leu
210 215 220

Arg Phe Phe Ser Val Ser Pro Asp Ser Pro Lys Gly Lys Ser Cys Ser
225 230 235 240

Arg Tyr Leu Arg Lys Met Arg Thr Arg Ser Ser Ala Arg Gly Arg Pro
245 250 255

Lys Ile Trp Ala Thr Ser Leu Lys Ser Leu His Gly Phe Leu Ser Met
260 265 270

His Leu Gly Pro Met Leu Ile Ser Ser Ser
275 280

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<213> Gossypium hirsutum

<400> 15

Lys Trp Glu Ala Gly Gln Ser Gln Cys Met Val Val Leu Val Phe Thr
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Gln Ile Ser Leu Val Lys Gly Lys Arg Lys Leu Cys Tyr Ser Ser Ile
20 25 30

Val Ala Leu Ile Leu Glu Ser Val Leu Phe Val Leu Thr Phe Pro Ala
35 40 45

Leu Thr Asp Met Asn Leu Tyr
50 55

<210> 16
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<213> Gossypium hirsutum

<400> 16

Met Pro Arg Thr Arg Arg Phe Asn Pro Pro Ser Ile Thr Ser Arg Thr
1 5 10 15

Leu Gly His His Val Tyr Lys Asp Asp Asn Pro Ile Val Tyr Gly Thr
20 25 30

Met Gln Ala Tyr Leu Lys Asp Ala Arg Glu Arg Leu Phe Asn Thr Ala
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35

40

45

Arg Thr Ala Glu Lys Leu Gly Ile His Met Gly Phe Lys Leu Val Arg
50 55 60

Gly Ala Tyr Met Ser Ser Glu Thr Lys Leu Ala Ser Ser Leu Gly Phe
65 70 75 80

Asp Ser Pro Val His Asn Thr Ile Gln Asp Thr His Ala Cys Phe Asn
85 90 95

Asp Cys Ala Ser Phe Met Ile Glu Lys Ile Ala Asp Gly Tyr Gly Gly
100 105 110

Leu Val Leu Ala Thr His Asn Leu Glu Ser Gly Lys Leu Ala Ala Ser
115 120 125

Lys Ala Arg Asn Leu Gly Ile Glu Lys Gly Asn Gln Lys Leu Glu Phe
130 135 140

Ala Gln Leu Tyr Gly Met Ser Glu Ala Leu Ser Ile Gly Leu Arg Asn
145 150 155 160

Ala Gly Phe Gln Val Ser Lys Tyr Leu Pro Tyr Gly Pro Val Asp Met
165 170 175

Val Met Pro Tyr Leu Leu Arg Arg Ala Glu Glu Asn Arg Gly Leu Leu
180 185 190

Ser Thr Ser Ser Leu Asp Arg Thr Leu Met Gly Lys Glu Leu Lys Arg
195 200 205

Arg Leu Lys Ser Leu Gln Phe Ala Lys Pro Glu Met Ala Ala Ser Ala
210 215 220

Ala Gly Ser Met Lys Ile Glu Ile Gly Thr Pro
225 230 235

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2207

<210> 18

<211> 1872

<212> DNA

<213> *Gossypium hirsutum*

<400> 18

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<210> 19
 <211> 1180
 <212> DNA
 <213> *Gossypium hirsutum*

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	tatatatatg	gggagatcac	catgttggtga	aaaggtaggg	ttgaagaaag	gtccatggac	120
	cccagaagaa	gatcaaaagc	tcttagctta	cattgaacaa	catggccatg	gaagctggcg	180
	tgcccttgcc	tcaaaagctg	ggcttcaaag	atgtggaaag	agttgcagac	tgagatggat	240
	taactacttg	agacctgata	tcaaaagagg	aaagttcagt	ttacaagaag	aacagaccat	300
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	cttacagtcc	cctacgtcaa	cgttgaactt	catggagaac	accacaacat	tgcccatgtc	780
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	agtgccttca	catattacca	ttaactgtaa	taataaacct	tcaaattaat	aaattaaaaa	1140
	actcacaagg	gtttttggcc	aaaaaaaaaa	aaaaaaaaaa			1180

<210> 20
 <211> 927
 <212> DNA
 <213> *Gossypium hirsutum*

<400> 20

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ttgagacctg atatcaaaag aggaaagttc agtttacaag aagaacagac cattattcaa	240
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gacaatgaga tcaagaacta ctggaacaca catctaataa aaaggctaac caaaatgggg	360
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tcgtctgtta atggaatgtt taatgaaaac tttggttgga actcatcgat taatccatgt	780
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<210> 21
 <211> 600
 <212> DNA
 <213> *Gossypium hirsutum*

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cgctctctcc atctctttct ttgtcccaa aagatctata ttattatgc ttatgttcac	540
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<210> 22
 <211> 452
 <212> DNA
 <213> *Gossypium hirsutum*

<400> 22
agcgatgtga gcgtctcctc ctctgtgtaa tctctgatgc aagatccatc cattatcttc 60
cctctgtatt ggctactgca accatgatgc acgtcataga ccaagttgag cttttcaatc 120
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catttggcag tgatagctcg agcgattcctt ggggcacggt gtccttatcg cctgagcagc 360
agccaccttt taagaagagc agagcccaag agcaagtaat gcgtttgccca tcactcaacc 420
gagtctttgt agacattggtt ggcagccctt ct 452

<210> 23
<211> 704
<212> DNA
<213> *Gossypium hirsutum*

<400> 23
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ggcaggggag cttgtaggac ccgggatttt ccaaaggtgt ttgaacgtgg tccagtacta 180
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tcagatgaat ctgtcggatt ttcttgattt gaaacaaagg gaagatgctg aagctcagct 420
tgttttcttg aaagatatgg atgagcaaaa cccacagttc tccccactct tttatgttca 480
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<210> 24
<211> 548
<212> DNA
<213> *Gossypium hirsutum*

<220>
<221> misc_feature
<222> (491)..(491)
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<400> 24
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tgctggaggg	gtttaaattt	taaagcaact	agtctaactt	acgttaaaga	ataatattaa	480
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tttttttt						548

<210> 25
 <211> 321
 <212> DNA
 <213> *Gossypium hirsutum*

<400> 25						
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gttgggtgta	tgactggcct	tggtgggtaca	ggtgggatgg	gcgccatggt	aggtgttggg	240
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<210> 26
 <211> 727
 <212> DNA
 <213> *Gossypium hirsutum*

<220>
 <221> misc_feature
 <222> (26)..(26)
 <223> n = unknown

<400> 26						
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catcaat	727

<210> 27
 <211> 562
 <212> DNA
 <213> *Gossypium hirsutum*

<220>
 <221> misc_feature
 <222> (26)..(26)
 <223> n = unknown

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gaaaccgtta gcttcatttt acttggagaa gacaaagaag ctattgttgt gctggacttg	300
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<210> 28
 <211> 835
 <212> DNA
 <213> *Gossypium hirsutum*

<400> 28	
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<210> 29
 <211> 765
 <212> DNA
 <213> *Gossypium hirsutum*

<400> 29	
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<210> 30
 <211> 985
 <212> DNA
 <213> *Gossypium hirsutum*

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<212> DNA
<213> Gossypium hirsutum
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ctgttttttga aaaccatggt gaagggtgaca aattaaagag tttggaagat aaatattccg      420
cggccttactt tcacaacaca caatcttcca aaatgatgaa ggatcacaaac atggaacatc      480
accaccatta ccataaccat gttgaaagtg cagagatagg cttgttcacc attgatgaac      540
tacatacctt taacgtaggg aagaaattac ccatcttttt cccaataaaa aaccactctc      600
tttaccctcc tttattgcct aaacaaattg ctgacaccat ccttttttca tctttccaag      660
tttctaatat tctacgattc ttctcagttt ctccggactc ccccaaaggc aaaagctggt      720
caagatacct tcgcaaaatg cgaactcgga gcagcgcaag ggggagaccc aaaatctggg      780
ctacctcttt aaaatcttta catgggtttc taagcatgca tttgggcccc atgttgattt      840
caagttcata agccaaggca tccccccata ccaacccac tctttcaaag ttacncagtt      900
ttagaatccc ntgaagagat tgaatctcca aagaaagtag catgtcatcc aatgccatat      960
ctttatgcag tttatttctg tcactttgat gccactgaga ttaaagcttt caaactccgt     1020
ttagttggtg atgttacggg agataagggtg gatgctgttg ttctttgcca tatggatact     1080
tcaggttgga gctctgatca tgctgctttt cgcatgcttg gtattaagca aggaaacact     1140
gtttgccatg tattttctca aggtaatctt gtttgatta atcagccatc ggatatcgct     1200
gccggtgcca tataagtgtt gaactgttcg atgtagcact catttgccac tacgtatcga     1260
gaccttatcn caatataagt atttaagagc tagtcttatg ttactaggt ttcattggtgt     1320
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<210> 42
<211> 1212
<212> DNA
<213> Gossypium hirsutum

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<220>
<221> misc_feature
<222> (895)..(895)
<223> n = unknown

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<220>
<221> misc_feature
<222> (911)..(911)
<223> n = unknown

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<400> 42
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 ttatgtttttt aatgtgtggc agaggcaatg cagtaagggg tttggaaggg aaacatgatt 120
 ttgaaagcca tggcagagac gacgaagtgg agagttttaga tgacaagtac gttagcgctt 180
 actttcatca aacttttgat tctgcaaadc actttgatgg aggtgatgaa gtgaagaatt 240
 tagaagacaa atattcaacg gcttacttcc acaaatcgtt agatttctgga aaccatggca 300
 gagatgacaa agcaaagata ttggaagaca agtatgctac tgcgtacttc cacaagactt 360
 ctgttttttga aaaccatggg gaaggtgaca aattaaagag tttggaagat aaatattccg 420
 cggcttactt tcacaacaca caatcttcca aaatgatgaa ggatcacac atggaacatc 480
 accaccatta ccataaccat gttgaaagtg cagagatagg cttgttcacc attgatgaac 540
 tacatacctt taacgtaggg aagaaattac ccatcttttt cccaataaaa aaccactctc 600
 tttaccctcc tttattgcct aaacaaattg ctgacaccat ccctttttca tctttccaag 660
 tttctaatat tctacgattc ttctcagttt ctccggactc ccccaaaggc aaaagctggt 720
 caagatacct tcgcaaaatg cgaactcggg gcagcgcaag ggggagaccc aaaatctggg 780
 ctacctcttt aaaatcttta catgggtttc taagcatgca tttgggcccc atgttgattt 840
 caagttcata agccaaggca tccccccata ccaacccac tctttcaaag ttacncagtt 900
 ttagaatccc ntgaagagat tgaatctcca aagaaagtag catgtcatcc aatgccatat 960
 ctttatgcag tttatttctg tcactttgat gccactgaga ttaaagcttt caaactccgt 1020
 ttagttgggtg atgttacggg agataagggtg gatgctgttg ttctttgcca tatggatact 1080
 tcagggttggg gctctgatca tgtcgctttt cgcatgcttg gtattaagca aggaaacact 1140
 gtttgccatg tattttctca aggtaatctt gtttggtatta atcagccatc ggatatcgct 1200
 gccggtgccg ta 1212

<210> 43
 <211> 1024
 <212> DNA
 <213> *Gossypium hirsutum*

<400> 43
 gtataacaga ggcagaatcg accggcataa aaataaaaat gggaggctgg gcaatcgcag 60
 tgcattggtg tgctggtgtt caccacaaatc tccctagtga aaggcaagag gaagctgtgc 120
 tactcctcaa tcgttgcctt gatattggaa tctgtgcttt ttgttctaac ctttccggca 180
 ttgactgaca tgaacttgta ttgagggaaat ttgaacggat cttttgctta attccgggag 240
 tggatcggca cttacggata aagggaacggg ggaaatggaa acttgcttta tggatggacc 300
 gaacagacca tgcggtgctg tttcgggttaa acgacatgga agaattccgat atctcttgct 360
 cgacttgaaa tggataaaac accacattca tctttgggtt ttgccggcgc cgattatttt 420

gcgaggaaac aggggtgtgga gttggtggac aatgaatatt tcattacaga atacaatgtg	480
gggatgctta agttaacaaa agaagcacac tcaatcctgt actattaccg taccctaacc	540
ctcaccacct gcggaggcag cgcagacatg gaaaatcgat tacgaatgaa ctggttacca	600
atctttctct acatcatata aacagtgggt cgagtcgcac catacaaaca atgtcattgc	660
tctgccgcta cttgcaccgg tggattaatg aacattatga ccggaaagat tggtgactcg	720
ccgctgattg gttcagagac ttatgcttgt gacttattgg ctgtttatgt accggtgaat	780
gtgaagccat tatgctaagc actttggcta cggaagtagc agcgtgatgg aatataaatg	840
gttgaatctt cctgaagctg tggatatgtg attaaactag actatgtgaa ggcaaagctg	900
gtctattgcc tgtcctatat gggagtgct tggggctgaa tactactggt atgatatggt	960
tggctactga agatggatta tggaagttgt tgtctgcaa ttgatgttag cttagatgct	1020
ggtc	1024

<210> 44
 <211> 795
 <212> DNA
 <213> *Gossypium hirsutum*

<400> 44	
gtataacaga ggcagaatcg accggcataa aaataaaaat gggaggctgg gcaatcgag	60
tgcatggtgg tgctggtgtt caccctaatc tccctagtga aaggcaagag gaagctgtgc	120
tactctcaa tcgttgccct gatattggaa tctgtgcttt ttgttctaac ctttccggca	180
ttgactgaca tgaacttgta ttgagggaa ttgaacggat ctttgctta attccgggcg	240
tggatcggca cttacggata aaggacgga ggaaatggaa acttgcttta tggatggacc	300
gaacagacca tgcggtgctg tttcgggtaa acgacatgga agaatccgat atctcttgc	360
cgacttgaaa tggataaaac accacattca tctttgggtt ttgccggcgc cgattat	420
gcgaggaaac aggggtgtgga gttggtggac aatgaatatt tcattacaga atacaatgtg	480
gggatgctta agttaacaaa agaagcacac tcaatcctgt actattaccg taccctaacc	540
ctcaccacct gcggaggcag cgcagacatg gaaaatcgat tacgaatgaa ctggttacca	600
atctttctct acatcatata aacagtgggt cgagtcgcac catacaaaca atgtcattgc	660
tctgccgcta cttgcaccgg tggattaatg aacattatga ccggaaagat tggtgactcg	720
ccgctgattg gttcagagac ttatgcttgt gacttattgg ctgtttatgt accggtgaat	780
gtgaagccat tatgc	795

<210> 45
 <211> 989
 <212> DNA
 <213> *Gossypium hirsutum*

<400> 45
accatacact ccaagacccc aaccattaac cgcacaagaa gaatcggatc ttgaattggc 60
acaccaaaga ctgttaaaac tttgccaaaa tgcgcgcagt acaacgttcc tttaaccatt 120
gatgccgagg acacgtcgat tcaacccgcc atcgattact tcacgtactc tcggccatca 180
tgtatacaaa gatgataacc ccattgtcta cggcacgatg caagcttact tgaaagacgc 240
gagggagcgg ctgtttaaca cggcgaggac ggcggagaag ctggggattc atatgggggtt 300
taagctggtg agaggcgctt acatgtcgag cgaaaccaag ttggcttctt ccttaggggtt 360
cgattcgccg gttcacaaca ccattcaaga caccatgct tgtttcaatg attgtgcttc 420
gtttatgatt gagaagattg ctgatgggta tggcggactc gttctcgcaa ctcataatct 480
tgagtcaggg aaattggcag catcgaaagc acgaaattta ggaattgaga aggggaatca 540
aaagcttgaa tttgcacagt tatatggaat gtcggaagcg ctgtcgattg gattgagaaa 600
cgcagggttt caagttagca aatacttacc ctatggacca gttgatatgg taatgccata 660
ccttttaagg agagccgaag aaaatagagg actcttatca acttcaagcc ttgatagaac 720
tctcatgggg aaggagtga agagaagatt aaagagcctg caatttgca agccagagat 780
ggcagcttca gcagcaggta gcatgaagat agaaatagga acgccataaa tgagggtttg 840
attcatagat ggtttgggat gggcaatttt tgccaacaat gtagaattat gaaaaaaaaa 900
taacaatcat tgtaacgttt gggcatttgt cccatgtcaa ttattatttg cattagaaat 960
tgaatttttt tctttatttt tgaaaaaaaa 989

<210> 46
<211> 410
<212> DNA
<213> Gossypium arboreum

<400> 46
atcaaggctg ccgtaatgtg caataatgct tgaccaaaaga tgatataaaa aaagggaaaa 60
gagaagaaaa ggtgttcgtc cgaaaacaaa tttaacgatt aaagaagtca agagcgcacc 120
tttcaattca tcctttgcgg tcatggtgtt ttgtaagaag gcaaaatcac caagcctgca 180
aggatagtag gttcgggaat tgactttgcc aaagagattt taatattaga tatgttggga 240
gaactcccca ttttgtgtag gctaagagtt caatgtagga gtggacttta tactagtcta 300
atttcttttc agtttcatgt gttattgttg aagcattagt tattttggac ttattcctcc 360
attaacaaac atttgtaat ttctgcttaa aaaaaaaaaa aaaaaaaaaa 410

<210> 47
<211> 665
<212> DNA
<213> Gossypium arboreum

<220>
<221> misc_feature

<222> (19)..(19)
<223> n = unknown

<220>
<221> misc_feature
<222> (112)..(112)
<223> n = unknown

<400> 47
attacaccct tttcatttnt agatcacatc ataagaagac tggggttgaa aaaccccacc 60
tcccatggga gtttcttaag cgatgtgagc gtctcctcct ctgtgtaatc tntgattcaa 120
gatccatcca ttatcttccc tctgtattgg ctactgcaac catgatgcac gtcatagacc 180
aagttgagct tttcaatccc attgactacc aaaatcagct gctgagtgtt cttaaaatta 240
gcaaggaaaa agtaaacgat tgttacaagc tcatccttga tgtatcaaca agaccccagg 300
cccaaggcaa tgggtggtgca tgtaagagga aggtggagga gagggttcct agcagcccta 360
gtggagtgat tgatgctgca tttggcagtg atagctcgaa cgattcgtgg ggcacggtgt 420
ccttatcgcc tgagcagcag ccacctttta agaagagcag agcccaagag caagtaatgc 480
gtttgccatc actcaaccga gtctttgtag acattgttgg cagcccttct taattatata 540
tcccttctct ctctccctcg ctctctccat ctctttcttt gtcccaaaaa gatctatatt 600
tattatgctt atgttcactt ttggttcaag gaatcaaag ttaagttaaa aaaaaaaaaa 660
aaaaa 665

<210> 48
<211> 626
<212> DNA
<213> *Gossypium hirsutum*

<220>
<221> misc_feature
<222> (581)..(581)
<223> n = unknown

<400> 48
cttgtttcta tctgtatata accaagggaa ttagacaccc gttcagttga aagagttcag 60
ctgaacaccc caaagatggc caaccacacc gttacctttc tccctaaact atccattgaa 120
gctattcaga cagtgactcc gatgaggata actgaaccac gacagactcg acaagtattg 180
gcaggggagc ttgtaggacc cgggattttc caaaggtgtt tgaacgtggt ccagtactac 240
atgaaggaga aagaagaaga ctctggttgg ttactggctg ggtggatcaa ggaaacactt 300
gggagagctt tacatgagca accaatgatt tctggctcgtc ttcggaaagg ggaacgaaac 360
gatggagaat tggagattgt ttccaatgac tgcggcatta gactcattga ggcaaggatt 420
cagatgaatc tgtcggattt tcttgatttg aaacaaaggg aagatgctga agctcagctt 480

gttttctgga aagatattga tgagcaaaac ccacagttct cccactctt ttatgttcag	540
gttactaatt tccagtgtgg tggatattca attgggatta nctgcagtat tcttctggca	600
gatcttttgt taatgaaaga attcct	626

<210> 49
 <211> 644
 <212> DNA
 <213> *Gossypium arboreum*

<220>
 <221> misc_feature
 <222> (585)..(585)
 <223> n = unknown

<400> 49	
actgagtaa gagtttcaat tcttctactt attatagtta aatatcatat atggccaagt	60
acttgaatgt tgtgcttggt cttgctctag tagtggttca agctactgca aggaatgtgc	120
ctagcgatgc tgctggtctc aatgaccaa agaacctctt cacatacggg ggcattggcg	180
gctactctgg catgggttca aatggcatgc caatgggtgg agttgggagt gttggtggta	240
tgactggcct tgggtgtaca ggtgggatgg gcgccatggt aggtgttggg tatggaggtg	300
ggcctggcgc tgggtgtgga aatgaagggt gtgttggcat tggcaatgcg cctggtgtcg	360
tccactttcc ttgaactttg ctggatgggt aaaattttaa agcaactagt ttcttgaact	420
ttgctggagg ggtttaaatt ttaaagcaac tagtctaact tacgttaaag agtaatatta	480
aagttgctct agagtgtgaa atgttttggg ttatgtgata ggtccatctt tatttttttt	540
atgtcgagtt ttcttttggt ttgtaatcct tcattgtcgt ggttntgtag ccgacttaaa	600
gtaaataaat tgattttgac aagttaaaaa aaaaaaaaaa acaa	644

<210> 50
 <211> 677
 <212> DNA
 <213> *Gossypium arboreum*

<400> 50	
gacactcaaa tataagtagc aaactaacct atgggttatt tggctgattt tgaagggttc	60
atggtgtatt ttggtgcgtg tctgttgaga atccgagttg ttgtcccgtg gtattagctt	120
ctctgtcttg ctggttgca ttgggcagtt gtgaggtcta taatcaagtg attcaaggaa	180
accgttagct tcattttact tggagaagac aaagaagcta ttgttgtgct ggacttgttc	240
ttgctttttc tctttgtatg gtgtggttta tggtttgtat tatgagtttt atatgaatag	300
aactttgaat ttggtgagaa aattaagaat gagcttggga ggagcagaag tgttgatggc	360
aatagcaggg ttgtgggcag tggttttgag gccattgatg ataaggatat ccgtagagat	420
gagtcaaatg attggaattt ccgttaggag agttttcagt aatcctcttt ccccttcctg	480

atcgtttttt tattggtact gatatagaaa ttctatgaaa tgagcacaat atgagacacc	540
attttttgct agccaagaag ttagatgagt ggtagacttt ggtttaagct tatcataatt	600
gaaattgta gactgtaacc cttttgtctc ctttctctaa tttcaaattcc aaattcccat	660
caataaaaaa aaaaaaa	677

<210> 51
 <211> 692
 <212> DNA
 <213> *Gossypium arboreum*

<400> 51	
ccctacattt ttacgctctg gcacagaaga agaaagccct acctatataa tattacatgc	60
aaatataatg gtatcattag acgttatgac atcgtataat gtaggaggca tctgctacta	120
acatttgcca gatgaaatta ttacgaaga acaatgggat attttctgta ttgttttatt	180
atatctggtt acttcaaagc actggttgca acaacagaaa tcaggtttct gctcttcatt	240
gccattgcta gggaggacca taaacaaacc attcttggga gatgggaaac cctcttgcca	300
ttaatgccag aacagtttgc agatattaga agcacttgaa aaataaagct gatacagata	360
attccatatg taattctact ataattctctt tctctttggt tctgtaatca aattccagta	420
agagcattac tatagtactc atgatttggt gattcttcta gtgaattgga gagtttagac	480
cctcttgaga agacagtga tgtagaactt ggtgcctctt ggatgggaag gctgatgttt	540
tcctaaaaga aggtcgtttt ttcattgtgt gcaatgttcg ccatgtataa agagttcgaa	600
acaatggtga gactctctcc ttgaacttga gaatgatgaa gaaaagtaat ctgtaagcta	660
tcaaaatcat tataacagct gctaagtcac ac	692

<210> 52
 <211> 788
 <212> DNA
 <213> *Gossypium arboreum*

<400> 52	
aagatgatga aaaggggttt tattgttttg gccttgatgg tggttttcgc cgcgacggtg	60
gttacggggg ctgacgagag tgggttagcg aatgagtgca gcaaagattt ccagagcgtg	120
atgacttgct taagctttgc tcaaggaaaa gcagcgtcgc cgtcgaagga gtgttgtaat	180
tcagtggcgg ggattaaaga gaataaaccc aaatgtttgt gttatatattt gcaacaaaca	240
caaacttccg gtgctcaaaa tctcaaaagc ttaggtgttc aagaagataa gctgtttcag	300
ttaccgtcgg cttgtcaatt gaagaacgct agcgtcagtg attgccccaa gcttcttggg	360
ttatctccga gctcaccaga cgccgccatc ttcaccaact cctcctctaa agcaacgaca	420
cccagtactt caacaaccac cgcaacgccg tcttccgcgg ccgataaaac cgatagcaaa	480
tccagtggaa tcaagcttgg tccccacttc gtcggttcca cggcggcgct actggttgct	540

acagcggccg tgtttttcct tgtattccca gctggatttg cttcaatagt ttaggggttc	600
tgcatgggat ttcgagattt ggaggtttat ttattgttga agtccatttg tttttaaacg	660
gtctcagaaa aaaaatggac tgagttgaca attatgatga tttttcgctt attcttgctt	720
tttcttattt gattaaacgt ccctttgaaa taaaacttag tttattttcc cagctttccc	780
cctgggaa	788

<210> 53
 <211> 634
 <212> DNA
 <213> *Gossypium arboreum*

<400> 53	
caaacactag tagaagggtt agttttacaa acatggctag ttccggtgct ctttaagttgg	60
tttccatgat tctcatcgtg tgcatgacgg tgatgagtgc acccaaggca gccaaagccg	120
ccatcacgtg cagcgacgtg gtgaaccact tgatcccgtg cttgtcctac gtacaaaacg	180
gcggtacacc cgctgctgca tgctgcagtg gggtaaaagc actctacggc gaggctcaga	240
cctccccgga ccgcaaaaac gtgtgcaagt gcatcaaadc ggcggtgaac ggaattccgt	300
acaccagcaa taacctcaat ctcgcagccg gcctacctgc taaatgtggt ctccaactcc	360
cttacagcat cagcccctcc actgactgca acaagggtgca gtgaggttga tgatgatgat	420
atggaagaag gagtggaaga aggttccagc tcagctagat aaagtagcta gctaaggtta	480
aataagctgt gttggtgtgt tgtttttttag aaaattccat atataatcgg ggaaagaaaa	540
aaaaaataga aaatgtactt tgtaactgta tttcgtatgt gatatatata atgtatcgta	600
atctttaatt ttttaaaaaa aaaaaaaaaa aaaa	634

<210> 54
 <211> 884
 <212> DNA
 <213> *Gossypium arboreum*

<400> 54	
cagtgaact caaatccatg aagacccgaa tgtggctctt ttctttctgg aaaaggatat	60
gcaccccgga gcaacaatga gcctacattt cactgaaaat acagagaaat cagctttctt	120
accttatcaa actgccccaa aaataccgtt ttcattctgac aagttgccag aaattttcaa	180
caagttttca gtgaaacctg gatcactgaa ggcagagatg atgaagaaca caattaagga	240
gtgcgaacag ccagcgattg aaggagagga aaaatattgt gcaacctcac tggagtcaat	300
gattgactat agcattttcca aactagggaa agttgatcag gcagtctcaa cagaagtgga	360
aaaacaaacc ccaacgcagc agtatacaat aacagctgga gtgcagaaga tgacaaatgg	420
caaagctgta gtgtgccaca agcagaatta tgcatatgct gtcttctatt gtcataaatc	480
agaaacaaca agggcttaca tggttccttt agagggtgct gacggaacaa aagccaaagc	540

agtagcagtc tgccacacag atacatcagc atggaaccca aagcatttgg cttttcaagt	600
cctaaaagtt gagccaggaa ccattcctgt ctgccatttc cttcctcggg atcacattgt	660
ttgggtccct aagtaaaagt cctgaagagt agattcatac actatagttt cttcacagt	720
tgcattaaaa cagcttaaag caatatccag tttgttctat aataatatac ccacaagttt	780
agtcatgtaa aatctatcca tgaatcatgt tcttagtaat ggataaaatg atattacttt	840
ctgtatcaca agggtttggt gataaatgta ttagtatttt aagt	884

<210> 55
 <211> 690
 <212> DNA
 <213> *Gossypium arboreum*

<400> 55	
ggagtgtctt cagaatcaaa ggaaatgggt tttcaattca attttccagt tcttctatta	60
tgtcttatgt ttttaatgtg tggcagaggc aatgcagtaa gggatttgga agggaaacat	120
gattttgaaa gccatggcag agacgacgaa gtggagagtt tagatgacaa gtacgttagc	180
gcttactttc atcaaacctt tgattctgca aatcactttg atggaggtga tgaagtgaag	240
aatttagaag acaaattttc aacggcttac ttccacaaat cgtagattc tggaaaccat	300
ggaagagatg acaaagcaaa gatattggaa gacaagtatg ctactgcgta cttccacaag	360
acttctgttt ttgaaaacca tgggtgaagg gacaaattaa agagtttgga agataaatat	420
tccgcggctt actttcaca cacacaatct tccaaaatga tgaaggatca caacatggaa	480
catcaccacc attaccataa ccatgttgaa agtgcagaga taggcttggt caccattgat	540
gaactacata cttttaacgt agggaagaaa ttacccatct ttttcccaat aaaaaaccac	600
tctctttacc ctcttttatt gcctaaacaa attgctgaca ccatcccttt ttcattctcc	660
caagtttcta atattctacg attcttctca	690

<210> 56
 <211> 653
 <212> DNA
 <213> *Gossypium arboreum*

<400> 56	
ggcacgagca gaatgaccgg cagagaataa aatgggaggc tgggcaatcg cagtgcattg	60
tgggtgctgg gtagacccaa atctccctaa tgaaaggcaa gaggaagcta aaagactcct	120
cactcgttgc cttgatattg gaatctctgc tcttcgttct aacctctccg ccattgacgt	180
cggtgaactt gtcgtgaggg aattggaaac ggatcctttg ttttaattccg ggcgtggatc	240
agcacttacg gagaaagggg cggtggaaat ggaagctagt attatggatg gaccgaagag	300
acgatgcggg gctgtttcgg gtttaacgac ggtgaagaat ccgatatctc ttgctcgact	360
tgttatggat aaaacaccac attcgtattt gggttttgcc ggcgccgaag agtttgcgag	420

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